

Ambivalence and Compromise in Human Nature

Triangulating to human nature generally is accomplished by finding analogies with nonhuman primates, by searching for overt behaviors that are universal, by identification of emotions that can be correlated with physiological responses or brain rewards, or by use of appropriate selection scenarios. An additional method is proposed, which focuses on universally occurring psychological ambivalences as manifestations of competing tendencies in human nature. Ethnographic exemplification concentrates on subsistence crises relevant to reproductive success, and dilemmas associated with feuding assassinations. It is argued that universal psychological ambivalences and the universal decision dilemmas these produce may be a better key to human nature than are universal patterns of observed behavior. It is suggested also that an ambivalence approach can assist us in arriving at a more specific treatment of human behavioral lability, one that can be usefully tied to the decision approaches employed by anthropologists.

HUMAN NATURE CAN BE BETTER UNDERSTOOD if one explains our more predictable behavioral propensities as being very often *contradictory*. By this is meant, in problem-solving contexts typical for our species, that the more definite genotypic tendencies may be working strongly at cross-purposes. At the phenotypic level, the resulting tensions are expressed most directly in the form of ambivalence—a psychological entity that, so far, has received scant ethnological attention in its own right.

The argument advanced here is that strategic study of ambivalences can lead to innovation not only in the investigation of decision dilemmas, but in the definition of human nature. I proceed first by setting up a model of human nature appropriate to the study of reproductively relevant decisions. Then, after providing several case-study analyses of ambivalences connected with subsistence or political crises, I discuss some important ethnological uses for ambivalence.

Why Focus on Ambivalence?

To put it simply, a person who is “ambivalent” is torn between conflicting feelings, desires, or alternatives for action. Psychologists view ambivalence technically in terms of “cathexis” (Murray and Kluckhohn 1959:11), in which positive and negative feelings toward an object are present simultaneously. By common sense, we usually think of such tensions as being two-sided, but here I extend “ambivalence” to include inner conflicts that combine more than two competing impulses.

Even though indigenous states of ambivalence may be rather well described in richer ethnographic accounts, definitive treatments of psychological anthropology (e.g., LeVine 1973; Bock 1980) have not focused directly on this universal human phenomenon. But as all anthropologists know through personal experience, and from intimate acquaintance with close informants everywhere in the world, a strong or protracted state of ambivalence can arise in any culture, and this can be fruitless, personally frustrating, and sometimes indicative of pathogenic “emotional disturbance.” This lends the word “ambivalence” a negative connotation.

However, I believe that nonpathological ambivalences have the potential to become a highly productive focus for ethnological analysis. For one thing, they may reflect genotypic tendencies in human nature. For another, they provide a key to better understanding decisions, a major interest of anthropologists in several fields of study. This is because ambivalences help to structure the practical dilemmas that are a necessary precondition for decision making.

While decisions have been used extensively in modeling economic behavior or social or political process, the "preconscious" inner machinations of decision makers have been judged to be all but methodologically impenetrable (Ortiz 1967; Gladwin and Murtaugh 1980). If one tries straightforwardly to debrief an informant during or after a routine individual decision, as to the nature of the dilemma and why one horn was favored, such pessimistic assumptions may seem warranted. However, some alternative strategies have been suggested (e.g., Western and Dunne 1979; Plattner 1984; Evens 1985; Boehm 1983, 1986). The ethnographic analysis that follows will provide an additional methodological perspective.

The purpose of this article is to demonstrate that competing genotypic tendencies produce feelings of ambivalence that are relevant to our understanding of how human beings solve reproductively significant problems. As a first step, I will survey some major approaches to characterizing human nature, and select from them a set of "genotypic dispositions" (LeVine 1973:169) or *genotypic tendencies*, as they will be called here, which seem to represent best the motivational raw materials of human behavior.

Scientific Models of Human Nature

Using the term *human nature*, I refer to the stronger, better-defined behavioral tendencies that all adult humans possess—tendencies that are stimulated or channeled by genes. There is right now no gene that can be demonstrated to be a causal force that stimulates or channels, let alone specifies, the development of any normal human adult social behavior (Wilson 1978:42–51). Because so little is known about behavior genes, the ethnographic analysis to come will depend upon "triangulation." But the genotypic tendencies I have in mind are strong enough so that they are likely to be either *expressed* or else decisively *suppressed* in adequately socialized and enculturated individuals who live in the full range of circumstances typical of our evolutionary history.

Given the importance of the topic and the unfalsifiability of most of the arguments, current approaches to conceptualizing human nature are as diverse as could be expected. I review below some of the more easily "typed" approaches that have been promulgated in a spirit of scientific inquiry.

1. *Tabula rasa viewpoints* (see Campbell 1965a:302) deny any specificity to genetic human nature. The notion is one of total environmental domination.

2. An *agnostic model* pleads that the matter is not yet worth discussing because of lack of progress in genetic science.

3. *Inconclusive multidimensional models* hold (or imply) that humans surely possess a broad array of weak behavioral propensities—but that at present it is impossible to separate the cultural and genetic elements.

4. *Generalized learning-program models* propose that genes program us to be excellent learners and that these learning programs are closely adapted to the general types of situations that are common to human life—but from there on, the behavioral content of what we learn is substantially up to cultural and personal circumstances. By itself, this might be viewed as a moderated version of *tabula-rasism*. (Pulliam and Dunford [1980] have outlined such a program, and much more.)

5. The *biogram model*. Count's (1958) landmark essay drew homologous parallels between humans and all other primates (e.g., the prolonged learning period of infant dependency).

6. *Common ancestor models*. Other homologous models include all primates (see Tooby and DeVore 1987), terrestrial monkeys (Strum and Mitchell 1987), African great apes

(Wrangham 1987), the two *Pan* species (Ghiglieri 1987), or, often just *Pan troglodytes* (e.g., Goodall 1979, 1986).

7. The *biogrammar model* is an ethologically based one that identifies needs and easily learned political behaviors which derive from a genotypic "deep structure," human language being the model (Tiger and Fox 1971:233). Other ethologically based models that have received wide attention are Tiger (1969, 1980), Fox (1980), Lorenz (1966), and Ardrey (1966).

8. *Ontogenetic models* examine the responses of human infants for clues about adults (e.g., anger responses; babbling as a preparation for language acquisition).

9. *Hard-wiring facial-expression/emotion models*. Darwin's (1872) research into correlations between universal facial expressions and presumptive universal emotions has been continued, with some falsifiable argumentation (Eibl-Eibesfeldt 1971; Ekman, Sorensen, and Friesen 1969; see also Bloch 1988).

10. *Brain reward models* use evidence from psycho-physiology to support arguments about tendencies likely to be genotypically based (e.g., Konner 1982; Hoebel 1983).

11. *Generic evolutionary-psychology models*. A broad evolutionary-psychological viewpoint held by Daly and Wilson (1988), also espoused by many evolutionary biologists (e.g., Alexander 1987:23; see also Tooby and Cosmides 1989, who emphasize cognition and information processing), proposes that all human traits are evolved by natural selection—including, of course, behaviors. In effect, human nature encompasses all human behavior.

12. *Selection-basis models*. These generic models require that behaviors included within human nature be demonstrated to have a specific logical basis in natural selection (e.g., sexual behavior directed at potential breeding partners).

13. *Kin selection models*. These sociobiological models (Wilson 1975; Chagnon and Irons 1979) focus the selection-basis model upon (genetically) "altruistic" behaviors explainable by inclusive fitness. Parental investment models (Trivers 1972) are a major subtype.

14. *Broadly conceived binary models*. Lumsden and Wilson (1981:110) view human decision behavior as involving a process of binary selection between "culturgens" within a population, with modeling derived from the binary competition process among genes as population geneticists explain it. In Lumsden and Wilson (1983), some significant attention is given binary decision ambivalences in modeling how the larger process of gene-culture selection operates.

15. *Polemical "binary" models* focus on certain traits, usually warlikeness and peacefulness, and treat them almost as "either-or" propositions: humans tend to be either one way or the other. Sometimes implicit (see Heider 1988), such views relate chiefly to certain arguments about the question of "aggression"—a loaded and confusing term (see Bohannon 1983) that is avoided in this article.

16. *Natural-inhibitor models*. Concerning morality, Wilson proposes that "innate censors and motivators exist in the brain that deeply and unconsciously affect our ethical premises; from these roots, morality evolved as an instinct" (1978:5-6). This little-developed idea implies a more specialized kind of "opposition" within human nature—one in which censor-genes inhibit the action of other genes.

17. *Culture-versus-nature models*. A different type of hypothesis, also based on oppositional forces, holds that cultural forces work against or control human nature (e.g., Campbell 1972, 1975; LeVine 1973; see also Ortner 1974). Campbell (1975) has proposed that within the civilized group legalized moral tradition regularly inhibits certain specific natural behavior tendencies such as selfish prevarication, stealing, and murder.

18. *Conflict-of-interest models* (Alexander 1987) view morality to be a way of dealing with sociopolitical competitions oriented by human nature.

19. *Inherent ambivalence models*. Emphasizing the point that ambivalence does not necessarily result in a simple compromise based on "averaging," Campbell (1965a:304-305) discusses psychological positions including Freud (1930) and James (1890) as proponents of models which oppose, respectively, Eros versus Death, and curiosity versus fear or

sociability versus pugnacity. Campbell's emphasis is on tensions between egoism and altruism, while the general influence of Freud (1930) on anthropological thinking about tensions between human impulses and sociocultural sources of censorship cannot be overestimated.

20. *Satisfaction-quest models.* Selecting from Malinowski's (1939) list of seven basic "needs," Ruyle (1973) proposes that specific quests for satisfaction (sex, hunger, creature comfort, giving nurturance, bonding) drive humans—a theory that complements studies of brain rewards.

The spectrum of "human natures" that one is likely to derive from the models listed above is broad. Human nature could be blank or specific, unidimensional or multidimensional; if specific, it could be peaceable or politically nasty. Human nature could determine culture, while several models (Campbell 1975; Ortner 1974) pit morality or culture against genotypic tendencies, and one (Wilson 1978) suggests that moral censorship itself might be genotypically based.

Some models break down human nature into specific genotypic tendencies (e.g., Darwin 1872; Wallas 1921; Malinowski 1939; Ruyle 1973; Fox 1980; Tiger and Fox 1971; Tiger 1969, 1980; Konner 1982; Morris 1983). But few aim at assembling all of the more likely genotypic tendencies so as to assess the potential interrelations among them, including relations of competition or conflict. Malinowski (1939) probably came the closest.

The array of approaches listed above provides many perspectives from which to triangulate to human nature. For example, a favorable selection scenario and evidence about physiological responses or brain rewards can be highly pertinent, as can behaviors of all other primates and particularly African great apes.¹ In addition, a behavior appearing universally or nearly so becomes at least a likely candidate for being prepared by a well-defined genotypic tendency.

However, I believe that reliance on universals has been overdone. For future research, I think a behavior universally suppressed (see Campbell 1975) through child-rearing practices or moral sanctioning of adults may be a still better prospect. Furthermore, a behavior that predictably appears in cultures where it is allowed expression, and has to be energetically suppressed in cultures where it is absent or rare, seems equally likely to be based upon well-defined genotypic tendencies. I will return to this point later.

A Simple Multidimensional-Compromisable Ambivalence Model

In trying to plausibly hypothesize some specifics of human nature, Darwin (1872) began with emotions. Fundamental to all primate behavior, these are notoriously difficult to describe precisely and replicably. Of course, with humans many states of emotional arousal cannot be measured in terms of the socially uninhibited pilo-erection, penile-erection, emission of fear-dung, vocalizations, postures, gestures, and facial expressions that make nonhuman primate emotion states so very public. But certain physiological correlates do provide important specific clues to human nature; for example, states of arousal which co-occur definitively with the handful of facial expressions that show uniformity independently of cultural conditioning. These include feelings of happiness, grief, fear, and anger, although catalogs of emotions become far more elaborate (e.g., Darwin 1872). To these I would add affectionate and erotic feelings (see Malinowski 1939; Konner 1982; Bloch 1988; but see also Ekman 1988).

Also genetically well-prepared are certain broader types of behavior, including the food quest, procreation, nurturance, social bonding, and finding creature comforts—behaviors strongly encouraged by *satisfactions* (Malinowski 1939; Ruyle 1973) that are specifically set up by genes. To this list of "satisfaction-quests" I would add esthetically rewarded creative activities (Dewey 1958; Ruyle 1973) and other forms of active problem solving (Boehm 1978) as far-more-generalized satisfying behaviors. Obviously, some of these categories are arbitrary; for example, nurturance, affection, and bonding might be merged into one or two genotypic tendencies.

We have here a cluster of fundamental emotions, combined with a list of plausible satisfaction quests that stimulate and channel the behaviors of all humans, as active problem solvers, in reproductively viable directions. While these emotions and quests provide a usefully simplified beginning for a sketch of human nature, the tendencies usually are treated just one at a time; for example, Darwin (1872) looked to interrelations between emotions mainly where there seemed to be a shared physiological basis for arousal, or when positing "antithetical" reactions as a subsidiary category. A century later, Konner's (1982) comprehensive catalog similarly treats rage, fear, joy, lust, love, grief, and gluttony each in a separate chapter. This reticence to fit all the parts together and sum up human nature as a whole, quite understandable in view of the topic's difficulties, is encountered in other recent general works, such as Wilson's *On Human Nature* (1978).

Studying the structure of predictable ambivalences provides a needed opening for better integrating the study of human nature. I begin with some quick exemplification of situationally induced, subsistence-connected ambivalences which involve the satisfaction quests, then illustrate the usefulness of an ambivalence approach in some ethnographic depth by dealing with rather complicated political ambivalences that arise in certain feuding assassinations.

Tensions Among Satisfaction Quests

Many of the tensions between needs for food, drink, creature comfort, nurturance, social contact, sexual satisfaction, and so on, are so obvious they seldom are remarked upon ethnographically. However, this should not diminish our interest in their importance in setting up or influencing human behavior in a variety of specifiable directions: tensions between two or more satisfaction quests can engender decision crises that are directly relevant to reproductive success.

The first example is hypothetical but broadly applicable. In hard times an adult individual's personal *food quest* may compete sharply with the *creature comfort quest* in terms of exposure, privation, and exhaustion—or with desire to fulfill the *nurturance quest* by satisfying needs of dependent offspring. A number of individual or cultural solutions may be devised—some of them three-way compromises: adults may altruistically suffer all necessary hardships in trying to feed their offspring normally; they may selfishly try to feed themselves adequately and neglect their offspring—even to death; they may wearily compromise and neglect themselves or their offspring to varying degrees; they even may lose heart and starve to death because, all but exhausted, they have decided to construe the situation "fatalistically." The decisions may be innovative, or may closely follow cultural precedent out of habit or fear of moralistic punishment.

Netsilik Eskimo conditions appear to dramatize these competitions among satisfactions. It can be inferred from Balikci (1970) that in normal times adaptive circumstances led to the pitting of satisfaction of creature comfort against satisfaction of hunger because of conditions of wind and cold that accompanied protracted seal hunting, and also could pit satisfaction of the social bonding quest against satisfaction of hunger because seal hunters sometimes had to disperse and hunt alone to maximize coverage of breathing holes. In hard times, the parental food quest was pitted more sharply against the hunter's quest for comfort and also against nurturance of offspring, which in turn could compete with parental fear of personal death: a possible extreme "compromise" was to cannibalize the children so that the parents might survive to procreate again.

By contrast, other environments (in normal times) may offer food resources sufficiently clumped so that hunting can be done collectively, without denying presumptive desires for sociability (e.g., Plains Indians). In hard times, however, the tensions between competing behavioral proclivities within individual actors may intensify sharply (see Laughlin and Brady 1978) as such actors compete for scarce resources. When Tikopia was hit by an unusual hurricane, which severely damaged crops and poisoned the soil with salt spray, the critical ambivalences involved selfish versus sharing behaviors connected with

the food quest, in which normal patterns of social bonding were compromised. The chiefly food redistribution system quickly broke down and people began to eat stolen immature plants, thereby denying fellow community members critically needed future foodstuffs. As the long-term problems generated by this sacrifice of social bonds in favor of satisfaction of hunger became apparent, the moral community as a whole stepped in and leaders set up anti-theft patrols (Firth 1959), which of course involved a culturally derived force acting against human nature. This introduced a new element of fear of sanctioning into individual decision making.

I do not wish to leave the impression that choices that are structured at the phenotypic level by competing genotypic tendencies are as rare as subsistence crises. Even in normal times, a member of a nonliterate affluent society must weigh quality and quantity of food eaten or given to offspring or to bonded individuals against the likelihood of exhaustion or other creature discomfort. But crisis examples show more dramatically that when behavioral lability is explained using a multidimensional, compromisable model of human nature, one can account rather specifically for a significant portion of the behavioral flexibility at the level of genotypic tendencies. This is done by examining specific dilemmas in specific problem situations which invoke tensions among the various tendencies within an individual decision maker.

Competitive Self-Assertion as a Major Complication

Much of the genetic channeling of human behavior can be related to the above-mentioned direct satisfaction-mechanisms involving sex, hunger, nurturance, comfort, and sociability, or to brain rewards if one wishes to think more technically. But a hedonistic satisfaction-quest model by itself cannot fully explain our capacities for dominant self-assertiveness and submission, which surely are very complicated (see Bohannan 1983).

Ultimately, agonistic capacities to fight and kill may facilitate many of the satisfaction quests. But these capacities seem to be geared most directly to angry or fearful competition with other humans. Such competition then leads either to special satisfactions for the winner—or to social compromises that result in satisfying forms of cooperation (Trivers 1971). So, the well-established universal emotions of anger and fear, combined with fighting and bluffing ability and capacities to dominate and submit (or flee) which we share in some significant measure with our pongid “cousins” (Tiger and Fox 1971; see also Omark, Strayer, and Freedman 1980), mediate the search for satisfactions when this becomes both interpersonal and competitive. Sociability, based on capacity for affection and the social bonding quest, acts concurrently in the other direction, to facilitate compromises geared toward cooperation.

This means that in directly competitive contexts, human nature seems to be set up structurally in a way that very easily breeds either cooperation or interpersonal conflict. For example, psychologically, humans can be friendly or hostile; socially, they can be mutually helpful or selfishly competitive, or, personally prone to mediate conflicts or quarrelsome; politically, within a group they can be individually submissive or dominant, while as members of a group they can be peacefully inclined or warlike.

Such ambivalences usually do not have to be resolved on an “either-or” basis. For one thing, competing impulses can alternate (Campbell 1965a). We also have seen in non-political contexts that this multidimensional potential can go in multiple directions behaviorally, because the competing propensities are adjustable to a wide variety of compromises.

Campbell (1965a:306) makes the important evolutionary point that balanced, coexisting tensions between opposing behavior tendencies can set up ambivalences which become behaviorally useful to individual genetic competitors. His example is the coexistence of altruistic and self-seeking tendencies.

Another point is that “ambivalence, rather than averaging, seems the optimal compromise” (Campbell 1965a:306). On the same page Campbell quotes William James:

"nature implants contrary impulses to act on many classes of things," including "sociability and pugnacity," which "seem to shoot over into each other . . . and remain in . . . unstable equilibrium" (James 1890:429). The question of whether what I refer to as "compromise" should be treated as "averaging," "alternation," or as a dynamic and variable mode of accommodation to environmental ambiguity—one which goes beyond these characterizations in the sense that a wide range of highly disparate compromise-alternatives may be available to the same ambivalent decision maker—requires further consideration.

In the next section, I examine some ambivalences—and compromises—that predictably arise in the highly competitive political process of feuding.

A Political Example of Cultural Ambivalence

One fundamental human social problem is the management of homicidal tendencies within the group. Feuding within a tribal system, like other forms of homicide such as warfare, combines homicidal behaviors with fearful tendencies associated with the perception of danger. This produces an obvious form of individual ambivalence found wherever armed combat exists. But where socially obligatory killing takes place and the targets are socially "known" individuals rather than anonymous "enemies," who are far easier to kill, a second form of ambivalence arises.

If the target of homicide is simultaneously defined as a mortal enemy and as someone with whom a significant social bond exists, this pits genotypic tendencies that make homicide possible against ones likely to inhibit homicide, specifically personal affection or a sense of social bonding. One obvious example of such ambivalence arises when exogamous-patrilineal-patrilocal people during warfare must deal with the fact that the competing kin group, defined generically as "enemy," contains affines. Not infrequently, as with Mae Enga "great fights" (Meggitt 1977), the bonding side of the ambivalence leads to individual compromise insofar as one takes care not to aim lethal missiles at in-laws.

The Otterbeins' (1965) classical cross-cultural study shows statistically that a cultural pattern of feuding is rather widely distributed worldwide, while Daly and Wilson (1988:226–227) suggest that the estimates may be low due to specialized coding assumptions. Blood revenge predictably is tied to concepts of manly honor, and informant statements about matters of honor tend to become unequivocal (Boehm 1986). One easily gets the idea from feuding ethnographies that the desire to take vengeance is emotionally single-minded, though tempered by occasional incidences of ambivalence due to "cowardice" (e.g., Turton 1977). This certainly was the image conveyed by a succession of Austrian, French, British, and Russian travelers and spies who visited 18th- and 19th-century Montenegro and Albania (see Durham 1909, 1928; Hasluck 1954; Boehm 1983, 1986). Their reports gave the impression that the ever-vengeful, head-hunting tribesmen were all but unambivalent.

There is ethnographic evidence to the contrary, which suggests that these Balkan warrior tribesmen were widely susceptible to ambivalence when it came to honorable revenge killing that in many cases retaliated for the death of someone closely bonded. This was especially likely if their "blood" was no longer angrily "boiling" or if they had to assassinate someone other than the actual killer.

I use the word "assassinate" advisedly, for revenge killing is different from close-quarters armed combat of the "kill or be killed" variety, in which the predominant ambivalence predictably is fear-based, and this fear of *being* killed directly stimulates killing. In a feuding society the prospective recipients of vengeance know who they are, and as quarry know what they must do to make themselves scarce or try to defend themselves. The hunting avenger is lucky, with persistence and cunning, to get in his shot distantly, from ambush, and frequently he has to settle for a mere agnate of the killer. Thus, while the passive target's life is fraught with anxiety, the actively vengeful stalker faces not only a certain amount of ambivalence due to fear, but often serious ambivalence over his role as highly premeditated executioner.

In ethnohistorical tribal Montenegro and in neighboring tribal northern Albania, blood feud was endemic. Men often consummated their revenge killings on schedule, quickly, as a matter of deep psychological fulfillment and to maintain personal and clan honor. However, sometimes fear of getting killed in the attempt or, more often, fear of subsequent lethal retaliation, could win out entirely over the need to commit homicide (Boehm 1986). Also, the second form of ambivalence which inhibits homicide because of bonding could come into play, particularly if the feud was with members of the same tribe or with ethnically compatible tribal neighbors.

Hasluck's (1954) account of an institutionalized means of coping with psychological problems that arose from committing deliberate revenge homicide contains strong hints of the latter form of ambivalence.

The fatal shot fired, a murderer's life was in such instant danger from the avenger that it behoved him to fly with all speed. But often his "blood seized him" so that "his legs gave way under him" and he was rooted to the spot from shock. Custom therefore prescribed in Shkoder, Lume and Godolesh that he must drop on the ground a cartridge or an article of clothing such as his fez, sash, or handkerchief; in Elbasan, Shpat and Cermenike that he must lick the muzzle of his rifle or pistol; alternatively, in Elbasan that he must inhale the smoke of the gunpowder or let his comrades slap his face; in Labinot that he must hold the cartridge case in his mouth and bite his little finger and suck the blood, and in Mat that he must eat a little gunpowder. That done successfully, "his blood was set free," "the seizure passed," and he was able to run away. [Hasluck 1954:228]

That these rituals served as a curative for "shock" after committing an assassination, rather than just to counteract fear for personal safety, is strongly implied when Hasluck states that the man's comrades (who are in equal danger but have not just assassinated someone) must slap his face. This is documented further when Hasluck mentions that sometimes the cartridge-case was left next to the victim. This was not only to set the assassin's "blood" free, but to "avoid carrying away a thing that was unlucky because stained with blood and sin" (1954:229).

In *human nature* terms, the angry capacity to kill competed with a generalized sense of bonding among Christian clans and tribes which together resisted Ottoman Turkish domination, intermarried, and often raided and sometimes feuded with nearby nontribal Ottoman subjects whom they despised as politically submissive cowards. In terms of *cultural tradition*, there were competing values that acted on individual Albanians and Montenegrins: the ancient code of honor that sanctified vindictive feelings and required retaliatory killing, versus the general code of ethics (a mixture of indigenous little traditions and Eastern Orthodox/Catholic Christian great traditions) that strongly proscribed killing within one's ethnic group (Boehm 1986; see also Boehm 1980:11).

If a warrior quickly retaliated to kill the killer of his born brother, the ambivalence was likely to be minimized because of the strong, highly immediate, personal motive of revenge. But sometimes vengeance was taken years (or decades) later by a rather distant agnate of the slain man, possibly upon a distant agnate of the killer. In this case, morally exacerbated ambivalence, attributable to a sense of being bonded, was likely to be maximal. If the target also was personally known by or specifically bonded to the vengeance-taker, ambivalence was exacerbated. Such ambivalence helped third parties to pacify many intracommunity feuds very rapidly (see Boehm 1986).

I should point out that, in both Albania and Montenegro, the most easily identified genotypic tendencies in such cases of ambivalence over homicide were sorrow over loss, anger (culturally identified as "boiling blood"), and realistic fears of personal dishonor; all militated for assassination. Acting obviously in the other direction were fear associated with being killed immediately in retaliation, fear of clan decimation, and sometimes a sense of being bonded to the victim as an affine, political ally, or "fellow independent tribesman." However, feelings of dominance and submission also came into play strongly, since feuding was closely connected with political competition. In Balkan tribal society, every clan and tribe had its military reputation or honor, and people were well

aware that their pattern of retaliation to lethal and nonlethal insults would determine the likelihood of other, similar groups trying to dominate them. One viable (but culturally disvalued and shameful) alternative was for the killer, his household, and sometimes his entire clan (if small), to flee and change their name.

Montenegrians, as culturally similar neighbors of the Albanian highland Ghegs, were quite aware of the form of ambivalence in which an otherwise clear-cut decision to retaliate was hampered because social bonds existed with the intended victim. Their oral tradition, as collected by Vrčević (1890) and Miljanov (1901), contains stories of individuals who had the opportunity to kill but desisted because of *čojstvo*, which glosses as something akin to "manly virtue." Miljanov, a tribal leader "retired" after state formation who then learned to read and write, explicitly defines *čojstvo* as a quality that enabled men to rise above the strong cultural prescriptions which impelled them to shed blood honorably, yet to make this adjustment in such a way that they did not become *kukavice*—cowards.

Miljanov's traditions include a prototypical story, translated in Boehm (1986:153–154), about not taking vengeance because this would leave the once-proud father of three sons without male progeny. At the end of an internecine battle within the larger, multi-segmented Kuči tribe, a man to whose clan blood was owed (the vengeance-seeker, or *osvetnik*) was poised to kill the killer of his brother. However, the killer's other two brothers had just died at the hands of tribesmen not from the *osvetnik*'s clan, so this left only one son to the killer's father. To avert the ultimate Montenegrin tragedy, which is for an old man to be left without male offspring to continue the patriline, the *osvetnik* ignored the cries of his fellow clansmen to kill the man and publicly foreswore his revenge—without losing social status. In that culture, by far the more certain course, in terms of cultural values placed on maintaining personal honor or clan political social standing, would have been to execute one's blood enemy in spite of personal ambivalence.

Because feuding assassinations are involved so heavily with sorrow, anger, dominance, fear, submission, and social bonding, an ambivalence model of human nature can help in explaining both the Albanian custom that treated "shock" following assassination and the pattern of exceptional compassionate behaviors reported by Miljanov. Alternatively, these cultural patterns could be used to support the case that human nature is as I have proposed it to be. Using the two strategies together within a single culture would introduce an unwarranted element of circularity. But I believe even a limited survey of rich and reliable data across feuding cultures could produce further evidence about ambivalence (e.g., Turton 1977; Meggitt 1977; Chagnon 1977, 1988; Daly and Wilson 1988:225; see also Evens 1985).² A full cross-cultural survey might confirm or disconfirm the psychological hypothesis that ambivalences and decision dilemmas of the type documented for Albania and Montenegro occur in other feuding societies because such ambivalences are genotypically based.

Another type of ambivalence which sometimes accompanies feuding is that of balancing subsistence needs (the food quest) against needs to dominantly express angry, vindictive feelings. Both considerations operated strongly in Montenegro, where truces were used to interrupt vehement feuds so as to get in the harvest (Boehm 1986). Similar ambivalences can be readily documented elsewhere, as in Turton's (1977) exegesis of a Mursi tribal debate in which critical subsistence needs won out over the dominance-driven need to retaliate immediately and honorably but without undue risk.

When one simultaneously takes into account male bonding with agnates and sorrow over loss, retaliatory anger, fear of death, fear of dishonor, orientations to both dominance and submission, hunger-driven concerns over subsistence, and compassionate inhibitions based on affection or bonding, the act of assassination becomes quite complicated. But such analysis does bring human nature more directly into ethnology, and provides some new variables, so far not fully exploited, for ethnologists to work with when they try to explain the remarkable regularities found in feuding systems (see Otterbein and Otterbein 1965; Black-Michaud 1975; Boehm 1986; Daly and Wilson 1988) or when they try to explain what may be an intimate relation between blood revenge and warfare (Chag-

non 1988). Ultimately, such investigations will need to be linked with questions of inclusive fitness (e.g., Chagnon 1988) and, in all probability, interdemic selection (Alexander 1974).

Why the "Ambivalence Model" Is Not Binary

Although overused in anthropology, binary structural schemes have worked well in explaining certain kinds of cultural behavior (e.g., Jakobson 1971 on phonemic distinctive features). Lumsden and Wilson (1981, 1983) have proposed a suggestive and elegant binary model which links gene-culture selection with decision process. By contrast, the present model is far from binary, in the sense of being based on switchlike "yes-no" mechanisms and "either-or" alternatives.

"Binary" models are used appropriately by geneticists to model gene selection and also are used by ethologists to explain certain genetically dominated "fixed action patterns" when these are modified by co-evolved "inhibitions" that adjust them in favor of reproductive success. Thus, a turkey hen is stupidly programmed to attack any creature that moves near her nest—unless it emits the specific vocalizations programmed into turkey chicks, which turn off the attack (Lorenz 1966). Because the inhibition, as a co-evolved behavior, throws the attack switch to "off," the effect seems to be binary. This type of co-evolved mechanism would appear to have been the model for Wilson's (1978) suggested "censor" genes.

By contrast, consider human violence. Like Montenegrins and North Albanians, other nonliterate people can blend their homicidal and counter-homicidal tendencies into various combinations, according to their socialization and cultural perceptions and depending upon the specific situational context. For example, in individual combat within one culture, they can grade the severity of their physical attacks rather finely according to kin connections or political exigencies (e.g., Chagnon 1977). At the group level, military responses also are "graded" rather than "binary." Yanomamo, who often merely "bluff" or go raiding with limited objectives, sometimes deliberately practice nearly genocidal warfare (Chagnon 1977). The Mae Enga, who raid and sometimes practice all-out intensive warfare, also practice large-scale "symbolic warfare" (Meggitt 1977), with homicides minimized so long as power remains balanced between two big groups. Because people exhibiting such behaviors can alternate among the patterns, and can make further combinations, little of the above seems binary in the sense of "fighting vs. not fighting." Rather, the competing tendencies are being *compromised*.³

Thus, parsimonious binary models do not provide an adequate conceptual basis for assessing either the complicated sets of phenotypic tendencies that set up human behavioral dilemmas, or the genotypic tendencies that underlie them. This is because the competition can be among more than two tendencies (e.g., counter-homicidal tendencies can include not only fear of combat, but also compassion or fear of privation), and also because real-life compromises can set the switches at various intermediate positions.

One conclusion of this discussion is that what might be called the behavioral side of human nature needs to be viewed multidimensionally in terms of discrete, specific emotions, satisfaction quests, and agonistic tendencies, which are analytically assumed to work independently at the phenotypic level. These genotypic tendencies set up some major psychological forces that are likely to compete with one another when the circumstances are right, as when during famine a parent is torn between *hungry* pursuit of a desperate food quest, acute dislike of *exhaustion*, *fear* of personal privation and death, *nurturant*, *affectionate* care for an ailing child, and often an *affectionate* concern for closely *bonded* relatives or affines who also need food. The result is ambivalence, and, where alternatives can be perceived, a sense of dilemma. The dilemma can either be acted upon or not as an item for problem solving, but often it is resolved by making a choice that involves compromise.

Values and Cultural Patterning of Ambivalence

Individuals sharing the genotypic tendencies I have hypothesized for human nature live in groups where they develop and refine their culture—a meaningful universe of learned and largely shared feelings, values, symbols, beliefs, knowledge, technologies, and fashioned objects. It is logical that culture should both reflect human nature and shape that nature as it becomes manifest in individual psychology. Cultural definition and patterning of feelings (e.g., Briggs 1970) and values (e.g., Boehm 1983) may reflect, suppress, support, or modify the various genotypic tendencies that structure ambivalence. Partly because feelings are so difficult to study (see Spiro 1984; M. Rosaldo 1984; R. Rosaldo 1980), I also have accounted for *values* in discussing feuding ambivalence.

Values, as culturally inspired concepts of the desirable (see Kluckhohn 1951:359), mix affect with cognition and are more reliably accessible to ethnographic description. One reason the study of values has never found a solid niche in the ethnological hall of fame is that the values of a given culture so often were treated formalistically—as discrete entities used to create a rather abstract “profile” for comparing one culture with another (e.g., Kluckhohn and Strodtbeck 1962). When values were seen to be competing, the emphasis was placed on creating binary structural analogies to phonemic distinctive-feature analysis (Kluckhohn 1958), rather than on dynamics inferred from behavior. Some refinements were made, eventually, and Campbell (1965a:305) has suggested that from the standpoint of natural selection the presence of opposing value tendencies may have survival value in “multi-contingency environments.” But the point was never adequately emphasized by anthropologists that within the same cultural tradition different values can compete sharply with one another, thereby helping to create ambivalence, and that in the decision process competing values often are compromised in various directions as ambivalences are resolved.

I mentioned earlier that even when similar ambivalences arise within the heads of many decision makers and they then make similar, observable decisions, the routinized individual decision process tends to be so intuitive that simply identifying the rejected alternatives through direct ethnographic debriefing is difficult. In spite of this, I believe that values and their relation to ambivalences within a single cultural tradition can be studied directly, as potentially competing preferences which are sorted out by setting up decision dilemmas and resolving them. One way to do this is to study values independently of decision process. Tensions between values can be identified through normal techniques of ethnographic analysis, and culturally salient ambivalences can be inferred (Boehm 1983:118–129).

However, in group decisions the actual competition among values becomes accessible when one listens to (or reads) the arguments in a routine tribal debate: the dilemmas, and the values that structure them, become explicit—or ethnographically inferable—through public group discussion (e.g., Firth 1959; Turton 1977; Meggitt 1977; Boehm 1986; Howe 1986; see also Duranti 1981) or by private discussions among individuals (e.g., Barth 1961:43–46). Where abrupt change is taking place, of course, value dilemmas tend to become exacerbated, and this inspires public debate (Firth 1975).

Some of the more predictable tensions between genotypic tendencies generate values that do not merely reflect the various tendencies; rather, at the level of cathexis they favor just one side of an ambivalence or, at the level of action, a particular horn of the perceived dilemma. In this way, values can decisively influence decision making. For example, independently of whether his culture approves or disapproves of retaliatory killing, an average individual male anywhere, whose brother has just been killed by a fellow community member, is likely to feel sorrowful, angry, and prone to retaliate. But, at the level of action, this strong tendency can be shaped decisively by cultural values as well as other factors. This is expressed statistically by the fact that some societies exhibit high homicide rates and others very low ones (see Daly and Wilson 1988).

For the average ambivalent Montenegrin *osvetnik* there is not only a strong precedent for taking vengeance, understood cognitively through prior experience and oral tradition, along with a "practical" (that is, non-ethically based) value placed on assertively maintaining personal and clan standing in a political hierarchy, but also honor-based positive valuation of a moral type, which influences his decision. The same individual also may feel strong compassion or fear of retaliation, but he knows that acting on the "cowardly" horn of the dilemma is both dangerous to personal and clan standing on a "practical" political basis, and almost always culturally disvalued on a moral basis. Normally, the former values convince him to take vengeance. Conversely, there are many cultures in which the angry feelings and "practical" values are similar, militating for lethal retaliation, but behaviorally a strong predominance of pacifistic moral values decisively favors the anti-homicidal horn of a would-be assassin's dilemma.

This means that even though the ambivalences set up by human nature and also the resulting dilemmas may remain constant across cultures, a given culture's practical and ethical values can strongly influence the actual pattern of intragroup retaliatory homicidal decisions—in one direction or the other. This point has important implications for triangulation. In thinking about "universals" as a clue to human nature, it might be more useful to search for universal dilemmas rather than trying to identify universal patterns in the solutions to such dilemmas (i.e., observed behavior patterns), which may vary markedly because of sharp differences in cultural value emphasis.

A Different Perspective on Universals

The numerous and varied assessments of human nature surveyed earlier were made by biologists, ethologists, primatologists, cultural and physical anthropologists, psychologists, and evolutionary psychologists. In the interest of trying to integrate the study of this domain, I have combined several plausible assessments so as to set up what might be called a conflict-model of human nature. This model posits a set of specific tendencies based on emotions, satisfaction quests, and agonistic propensities that can either combine or work at cross-purposes in specific problem situations. It emphasizes the multidimensionality, independence, and compromisability of competing genotypic tendencies as they interact phenotypically in the psyche.

Many of the stronger psychological ambivalences experienced by humans seem to be expressions of these competing tendencies, and such ambivalences help to structure decision dilemmas as people size up the problems they face. One preliminary way of evaluating such a model is intuitively to compare hypothesized configurations of genotypic tendencies against ethnographically evident ambivalences on a case-study basis within a single culture, as I have done for Balkan feuding.

The same model could be tested more reliably: if several other feuding societies evaluated by different analysts were found to be generating similar ambivalences, such as special ambivalence over having to assassinate bonded individuals or ambivalence involving tradeoffs between need to retaliate versus fear of privation or retaliation, then this agreement could be used as an additional means of triangulation. It would increase our confidence in including anger and dominance, fear and submission, bonding, and hunger as forces that have a rather definite and strong genotypic foundation.

A more decisive triangulation method would be to conduct a full cross-cultural survey, to see whether certain predictable problems faced by humans as problem solvers may involve similar ambivalences and perceptions of dilemma everywhere. However, this method should not be confused with the venerable tradition, initiated by Darwin (1872), of counting universals at the level of observed behavior (e.g., Westermarck 1924; Kluckhohn 1953; Campbell 1975; Boehm 1979; Lopreato 1984; Renteln 1988).

My argument is that if one is interested in identifying universal human behavioral tendencies and takes observed behaviors to be the strategic unit for investigation, there is the critical problem that the *motivational* regularities which closely reflect human nature

do not necessarily produce *behavioral* regularities. This is because humans are set up to become ambivalent in many situations, and because culturally patterned preferences in the form of values, along with situational factors or differences of world view, may sway ambivalent decision makers in different cultures to favor different horns of the same, predictable dilemma.⁴

Thus, the more useful universals to survey are psychological ambivalences and the specific decision dilemmas that these help to structure, rather than observed behaviors, which are the final product of decision process. If a given ambivalence or dilemma is found empirically to be universal, and one or more of the conflicting forces identified seems likely to be structured by genotypic tendencies, one has a highly plausible basis for triangulation to human nature. This is true independently of whether the final decisions produce a single pattern of behavior or several.

If this research strategy is accepted, there remain practical problems in harnessing the available ethnographic information. Ambivalence is not necessarily substantiated from a published ethnography, though sometimes the materials are sufficiently rich; for example, Firth's (1959) study of Tikopia in subsistence crisis, Turton's (1977) account of Mursi debate, or the ethnohistorical Balkan evidence on feuding. However, once some basic patterns of ambivalence have been identified, one can infer related decision dilemmas and the ambivalences that underlie them from ordinary ethnographic description.

As one example, in feuding societies temporary truce-making is widely reported as a way of briefly interrupting feuds. On the basis of normal ethnographic description, one can make the case that such decisions involve either a fearful desire to unite politically against an external enemy, a severe need to concentrate on subsistence problems, great weariness, or sorrow over continued loss of closely bonded kinsmen, all working against the tendencies that militate for retaliatory assassinations. A working hypothesis is that these ambivalences and dilemmas may be universal (or widespread) in societies that feud. If this is substantiated, the explanatory power of an integrative working model of human nature is advanced.

If one wishes to explore intragroup homicide more broadly, the focus on ambivalence and dilemma provides an important methodological advantage. While privately or publicly many anthropologists have taken sides on the issue of whether humans are basically "murderous," Wilson and Daly's (1988) recent survey suggests, in spite of extreme cultural differences in statistical rates of homicide, that virtually all human societies report at least occasional cases of murder. Their reasonable suggestion (Daly and Wilson 1988:296-297) is that marked cultural differences are able to develop because the genotypic tendency is flexible.

A more specific assessment can be made, however, on the basis of the analysis of Balkan feuding assassination. This is that humans everywhere tend to be ambivalent about committing homicide within the local community, and that differing patterns of cultural reinforcement or suppression, acting on one side of this ambivalence or the other, help to account for the wide differences in homicide rates. My suggestion is that the questions we normally ask about human nature have been oversimplified, because they do not account for ambivalence.

If Daly and Wilson (1988) are right, the male whose brother has been killed by another community member is likely to feel angry and prone to retaliate independently of whether his culture reinforces or suppresses such killing. I have suggested that he also is likely to feel ambivalent. It is because of the powerful ambivalences involved that such strong and definite feelings sometimes can be tilted rather decisively in opposite directions, by a combination of awareness of cultural precedent, internalization of cultural values, and active sanctioning of moral communities. This explains the fact that within the community some cultures strongly encourage lethal revenge, some merely tolerate it, and others suppress it.

If the general assumption is correct that universal or widely distributed ambivalences and dilemmas are more useful for triangulation than are universally observed behaviors,

certain types of observed behavior still can shed light decisively on human nature. For example, I suggested earlier that a behavior universally suppressed was a better clue to human nature than one expressed universally. This is because certain behaviors, everywhere attractive to many individuals, are regularly deemed antisocial by moral communities within which they take place. A favorite example is incest.

Since incest can be associated directly with erotic feelings and with the reproductive quest, it is directly connected with human nature as defined above. The perpetrators feel ambivalences because of "conscience" or fear of sanctioning, and the *cultural* messages, at least, are not likely to be mixed. Universal sanctioning in this area clearly is a culturally shaped reaction to the powerful sexual satisfaction quest, and this enhances our identification of that genotypic tendency. An interesting question, more difficult to answer, is whether the cultural suppression, itself, is guided by genotypic tendencies selected because they inhibit inbreeding (see Fox 1980).

The Question of Behavioral Lability

One reason that anthropologists have been reluctant to deal with specifics of human nature has been that so few observed behaviors seem to be universal (see Kluckhohn 1953). However, I have asserted that human genotypic tendencies can produce similar states of ambivalence and can structure similar decision dilemmas everywhere, even though the observed final behavior patterns may vary culturally. I believe that further analyses based on this assumption could reconcile the notion of a rather strong and definite set of genotypic tendencies within human nature, with the impressive cultural variability found in the ethnographic record. This, of course, is a classical area of disagreement among anthropologists (see LeVine 1984:80).

Frequently, the term "lability" is applied to the human behavioral potential as a way of paying homage to a behavioral flexibility so impressive that it seems all but infinite. The preliminary analysis provided here suggests something rather different. Humans often do seem to have many options, yet in areas critical to reproductive success these options are shaped and limited by the structure of the genotypic tendencies within human nature and by the ways that these can combine or compete. The permutations, as governed also by constraints of situation, cognition, and local cultural tradition, would appear to be quite varied insofar as a considerable range of compromises is possible. Yet this range is immediately circumscribed by a finite set of likely decision dilemmas.

Over the evolutionary long run, of course, the range of viable compromises is constrained more ultimately by inclusive fitness. But the "genetic leash," as it has been called by Lumsden and Wilson (1981:13, 179), is a relatively long one. My suggestion is that further ethnographic analysis of ambivalences likely to be set up by human nature, and analyses of how decision dilemmas are perceived and resolved in different cultures, could lead to a far more specific definition of "lability."

Conclusions

In exploring some ethnological uses for ambivalence, I have arrived at several conclusions. The most general one is that study of psychological ambivalences and their role in structuring decision dilemmas can connect the study of human nature rather directly to the ethnographic study of decisions, with benefits for both sides. More specifically, by mating a values approach with direct investigation of certain ambivalences and the decision dilemmas that these help to structure, one can study the point of interchange between human nature, cultural tradition, and observed behavior.

To facilitate such study, obviously one must take into account not only genotypic tendencies and cultural values, but natural, social, and political environmental exigencies and cognitive assessments involved in problem solving, major problems not discussed above. There are also the selection implications of what happens at this interchange (Durham 1982; Lumsden and Wilson 1983; see also Campbell 1965b; Boehm 1978).

A second general conclusion is that by trying to account for human nature as it helps to set up decision dilemmas, a better-integrated view of that nature is likely to emerge. This is because such a focus obliges us to consider how genotypic tendencies may combine and conflict. I have focused on the conflictive aspect, because the independent action of certain genotypic tendencies is best demonstrated through conflict, and because I wanted to tie such tendencies to the construction of dilemmas. The less-emphasized combinatorial aspect also is important for building a better-integrated and more testable model of human genotypic tendencies.

A narrower conclusion is that by directly investigating ambivalences relevant to reproductively important decision making, one can begin to test competing models of human nature. The ethnographic analyses constituted such testing, although the fit that was found between hypothesized genotypic tendencies and inferred ambivalences and dilemmas must be viewed as being subjective and tentative at this point. A blind-coded cross-cultural survey made on the same basis could test more reliably for universality or near-universality of particular ambivalences or dilemmas. If identified, these could be used as far stronger triangulation evidence for evaluating genotypic tendencies hypothesized in human nature.

There are several advantages in defining human nature structurally so as to account for the psychological ambivalences that help to set up decision dilemmas. Such definition can improve triangulation to human nature and can integrate its study. It also leads to a new way of looking at actual decision processes—a way that can bring both hypotheses about genotypic tendencies and the study of values directly into decision theory. Finally, the analysis of inner conflicts structured by human nature can provide a special perspective for understanding and explaining the human mind itself, as it flexibly strives to solve problems critical to reproductive or political success.

Notes

Acknowledgments. I am grateful to the following colleagues for commenting on the paper or helping with sources: Michael Boehm, Donald T. Campbell, Keith Otterbein, Norman B. Schwartz, Walter Goldschmidt, and Barbara Thiel.

¹Sixteen months' observation of chimpanzee behavior in the wild have provided the author, a cultural anthropologist, with a special bias, best stated, that favors emphasis of emotions and agonistic propensities in human nature. (Field research was supported by the L. S. B. Leakey Foundation, Northern Kentucky University, and the H. F. Guggenheim Foundation, in collaboration with the Gombe Stream Research Centre.) Other relevant research on human political behavior was funded by the National Endowment for the Humanities, and the H. F. Guggenheim Foundation.

²Evens's (1985) reanalysis of Nuer feuding effectively focuses on decision dilemmas but is not geared to the concerns of this article.

³When I speak of a compromise between two genotypic tendencies, this does not rule out the simultaneous action of behavioral forces that are not genotypic, as defined above.

⁴I have set aside the important separate problem of individual variation (see LeVine 1973).

References Cited

- Alexander, Richard D.
 1974 The Evolution of Social Behavior. *Annual Review of Ecology and Systematics* 5:325–383.
 1987 The Biology of Moral Systems. New York: Aldine de Gruyter.
- Ardrey, Robert
 1966 The Territorial Imperative. New York: Atheneum.
- Balikci, Asen
 1970 The Netsilik Eskimo. Garden City, NY: Natural History Press.
- Barth, Fredrik
 1961 Nomads of South Persia: The Basseri Tribe of the Khamsch Confederacy. Boston: Little Brown.
- Black-Michaud, Jacob
 1975 Cohesive Force: Feud in the Middle East and Mediterranean. New York: St. Martin's.

Bloch, Susanna

- 1988 Rejoinder to Comments on "Effector Patterns of Basic Emotions." *Journal of Social and Biological Structures* 11:213-214.

Bock, Philip K.

- 1980 Continuities in Psychological Anthropology: A Historical Introduction. San Francisco, CA: Freeman.

Boehm, Christopher

- 1978 Rational Preselection from Hamadryas to Homo Sapiens: The Place of Decisions in Adaptive Process. *American Anthropologist* 80:265-296.
 1979 Some Problems with Altruism in the Search for Moral Universals. *Behavioral Science* 24:15-24.
 1980 Exposing the Moral Self in Montenegro: The Use of Natural Definitions to Keep Ethnography Descriptive. *American Ethnologist* 7:1-26.
 1983 Montenegrin Social Organization and Values: Political Adaptation of a Refuge Area Society. New York: AMS Press.
 1986 Blood Revenge: The Enactment and Management of Conflict in Montenegro and Other Tribal Societies. Philadelphia: University of Pennsylvania Press.

Bohannan, Paul J.

- 1983 Some Bases of Aggression and Their Relationship to Law. In *Law, Biology and Culture: The Evolution of Law*. Margaret Gruter and Paul Bohannan, eds. Pp. 147-158. Santa Barbara, CA: Ross-Erikson.

Briggs, Jean

- 1970 Never in Anger. Cambridge, MA: Harvard University Press.

Campbell, Donald T.

- 1965a Ethnocentric and Other Altruistic Motives. In *Nebraska Symposium on Motivation*. D. Levine, ed. Pp. 283-311. Lincoln: University of Nebraska Press.
 1965b Variation and Selective Retention in Socio-Cultural Evolution. In *Social Change in Developing Areas*. H. R. Barringer, B. L. Blanksten, and R. W. Mack, eds. Pp. 19-48. Cambridge, MA: Schenkman.
 1972 On the Genetics of Altruism and the Counter-Hedonic Component of Human Culture. *Journal of Social Issues* 28:21-37.
 1975 On the Conflicts Between Biological and Social Evolution and Between Psychology and Moral Tradition. *American Psychologist* 30:1103-1126.

Chagnon, Napoleon

- 1977 Yanomamo: The Fierce People. New York: Holt, Rinehart and Winston.
 1988 Life Histories, Blood Revenge, and Warfare in a Tribal Population. *Science* 239:985-992.

Chagnon, Napoleon A., and William Irons, eds.

- 1979 Evolutionary Biology and Human Social Behavior: An Anthropological Perspective. North Scituate, MA: Duxbury.

Count, Earl W.

- 1958 The Biological Basis of Human Sociality. *American Anthropologist* 60:1049-1085.

Daly, Martin, and Margo Wilson

- 1988 Homicide. New York: Aldine de Gruyter.

Darwin, Charles

- 1872 The Expression of the Emotions in Man and Animals. London: John Murray.

Dewey, John

- 1958 Art as Experience. New York: Capricorn Books.

Duranti, A.

- 1981 Speech Making and the Organization of Discourse in a Samoan *fono*. *Journal of the Polynesian Society* 90:357-400.

Durham, Mary E.

- 1909 High Albania. London: Edward Arnold.
 1928 Some Tribal Origins, Laws, and Customs of the Balkans. London: George Allen and Unwin.

Durham, William H.

- 1982 Interactions of Genetic and Cultural Evolution: Models and Examples. *Human Ecology* 10:289-323.

Eibl-Eibesfeldt, Irenaus

- 1971 Love and Hate: The Natural History of Behavior Patterns. New York: Holt, Rinehart and Winston.

Ekman, Paul

- 1988 Commentaries on "Effector Patterns of Basic Emotions" by S. Bloch, P. Orthous, and G. Santibanez-H. *Journal of Social and Biological Structures* 11:202.

Ekman, Paul, Richard Sorensen, and Wallace Friesen

- 1969 Pan-cultural Elements in Facial Displays of Emotion. *Science* 164:86-88.

Evens, T. M. S.

- 1985 The Paradox of the Nuer Feud and the Leopard-Skin Chief: A "Creative" Solution to the Prisoner's Dilemma. *American Ethnologist* 12:84-102.

Firth, Raymond

- 1959 Social Change in Tikopia: Re-study of a Polynesian Community After a Generation. London: George Allen and Unwin.

- 1975 Speech-Making and Authority in Tikopia. In *Political Language and Oratory in a Traditional Society*. M. Bloch, ed. Pp. 29-43. New York: Academic Press.

Fox, Robin

- 1980 *The Red Lamp of Incest*. New York: Dutton.

Freud, Sigmund

- 1930 *Civilization and Its Discontents*. London: Hogarth.

Ghiglieri, Michael

- 1987 Sociobiology of the Great Apes and the Hominid Ancestor. *Journal of Human Evolution* 16:319-357.

Gladwin, Hugh, and Michael Murtaugh

- 1980 The Attentive-Preattentive Distinction in Agricultural Decision Making. In *Agricultural Decision Making*. P. Barlett, ed. Pp. 115-136. New York: Academic Press.

Goodall, Jane

- 1979 Life and Death at Gombe. *National Geographic* 155:592-622.

- 1986 *The Chimpanzees of Gombe*. Cambridge, MA: Harvard University Press.

Hasluck, Margaret M.

- 1954 *The Unwritten Law in Albania* (J. H. Hutton, ed.). Cambridge: Cambridge University Press.

Heider, Karl G.

- 1988 The Rashomon Effect: When Ethnographers Disagree. *American Anthropologist* 90:73-81.

Hoebel, Bartley G.

- 1983 The Neural and Chemical Basis of Reward: New Discoveries and Theories in Brain Control of Feeding, Mating, Aggression, Self-Stimulation, and Self-Injection. In *Law, Biology and Culture: The Evolution of Law*. Margaret Gruter and Paul Bohannon, eds. Pp. 111-128. Santa Barbara, CA: Ross-Erikson.

Howe, James

- 1986 *The Kuna Gathering: Contemporary Village Politics in Panama*. Austin: University of Texas Press.

Jakobson, Roman

- 1971 Implications of Language Universals for Linguistics. In *Selected Writings*, Vol. 2: Word and Language. Pp. 580-592. The Hague: Mouton.

James, William

- 1890 *Principles of Psychology*, Vol. 2. New York: Holt.

Kluckhohn, Clyde

- 1951 Values and Value-Orientations in the Theory of Action: An Exploration in Definition and Classification. In *Toward a General Theory of Action*. T. Parsons and E. Shils, eds. Pp. 395-418. Cambridge, MA: Harvard University Press.

- 1953 Universal Categories of Culture. In *Anthropology Today*. Pp. 507-523. Chicago: University of Chicago Press.

- 1958 *The Scientific Study of Values*. Toronto: University of Toronto.

Kluckhohn, Florence, and Fred L. Strodbeck

- 1962 *Variations in Value Orientations*. New York: Harper and Row.

Konner, Melvin

- 1982 *The Tangled Web: Biological Constraints on the Human Spirit*. New York: Holt, Rinehart and Winston.

Laughlin, Charles D., and Ivan A. Brady, eds.

- 1978 *Extinction and Survival in Human Populations*. New York: Columbia University Press.

LeVine, Robert A.

1973 *Culture, Behavior, and Personality*. Chicago: Aldine.

1984 *Properties of Culture: An Ethnographic View*. In *Culture Theory: Essays on Mind, Self and Emotion*. Richard A. Shweder and Robert A. LeVine, eds. Pp. 67–87. Cambridge: Cambridge University Press.

Lopreato, Joseph

1984 *Human Nature and Biocultural Evolution*. Boston: Allen and Unwin.

Lorenz, Konrad

1966 *On Aggression*. New York: Bantam.

Lumsden, Charles J., and Edward O. Wilson

1981 *Genes, Mind, and Culture: The Coevolutionary Process*. Cambridge, MA: Harvard University Press.

1983 *Promethean Fire: Reflections on the Origin of Mind*. Cambridge, MA: Harvard University Press.

Malinowski, Bronislaw

1939 *The Group and the Individual in Functional Analysis*. *American Journal of Sociology* 44:938–964.

Meggitt, Mervyn

1977 *Blood Is Their Argument*. Palo Alto, CA: Mayfield.

Miljanov, Marko

1901 *Primjeri Čojstva i Junaštva (Examples of Manly Virtue and Heroism)*. Belgrade.

Morris, Richard

1983 *Evolution and Human Nature*. New York: Seaview/Putnam.

Murray, Henry, and Clyde Kluckhohn

1959 *Outline of a Conception of Personality*. In *Personality in Nature, Society and Culture*. Clyde Kluckhohn, Henry Murry, and David M. Schneider, eds. Pp. 3–52. New York: Knopf.

Omark, Donald R., F. F. Strayer, and Daniel G. Freedman, eds.

1980 *Dominance Relations: An Ethological View of Human Conflict and Social Interaction*. New York: Garland STPM Press.

Ortiz, Sutti

1967 *The Structure of Decision Making Among Indians in Columbia*. In *Themes in Economic Anthropology*. R. Firth, ed. Pp. 191–228. London: Tavistock.

Ortner, Sherry

1974 *Is Female to Male as Nature Is to Culture?* In *Women, Culture, and Society*. Michelle Z. Rosaldo and Louise L. Lamphere, eds. Pp. 67–87. Stanford, CA: Stanford University Press.

Otterbein, Keith, and Charlotte Swanson Otterbein

1965 *An Eye for an Eye, a Tooth for a Tooth: A Cross-Cultural Study of Feuding*. *American Anthropologist* 67:1470–1482.

Plattner, Stuart

1984 *Economic Decision Making of Marketplace Merchants: An Ethnographic Model*. *Human Organization* 43:252–264.

Pulliam, Ronald H., and Christopher Dunford

1980 *Programmed to Learn: An Essay on the Evolution of Culture*. New York: Columbia University Press.

Renteln, Alison D.

1988 *Relativism and the Search for Human Rights*. *American Anthropologist* 90:56–72.

Rosaldo, Michelle

1984 *Toward an Anthropology of Self and Feeling*. In *Culture Theory: Essays on Mind, Self and Emotion*. Richard A. Shweder and Robert A. LeVine, eds. Pp. 137–157. Cambridge: Cambridge University Press.

Rosaldo, Renato

1980 *Ilongot Headhunting*. Stanford, CA: Stanford University Press.

Ruyle, Eugene E.

1973 *Genetic and Cultural Pools: Some Suggestions for a Unified Theory of Biocultural Evolution*. *Human Ecology* 1:201–215.

Spiro, Melford E.

1984 *Some Reflections on Cultural Determinism and Relativism with Special Reference to Emotion and Reason*. In *Culture Theory: Essays on Mind, Self and Emotion*. Richard A. Shweder and Robert A. LeVine, eds. Pp. 323–346. Cambridge: Cambridge University Press.

Strum, Shirley, and William Mitchell

- 1987 Baboons, Models and Muddles. *In* The Evolution of Behavior: Primate Models. W. G. Kinzey, ed. Pp. 87–104. Albany: SUNY Press.

Sweet, Louise E.

- 1970 Camel Raiding of North Arabian Bedouin: A Mechanism of Ecological Adaptation. *In* Peoples and Cultures of the Middle East, Vol. 1: Cultural Depth and Diversity. Louise Sweet, ed. Pp. 265–289. Garden City, NY: Natural History Press.

Tiger, Lionel

- 1969 Men in Groups. New York: Random House.
1980 Optimism. New York: Simon and Schuster.

Tiger, Lionel, and Robin Fox

- 1971 The Imperial Animal. New York: Delta.

Tooby, John, and Irven DeVore

- 1987 The Reconstruction of Primate Behavioral Evolution Through Strategic Modeling. *In* The Evolution of Behavior: Primate Models. W. G. Kinzey, ed. Pp. 183–238. Albany: SUNY Press.

Tooby, John, and L. Cosmides

- 1989 Evolutionary Psychology and the Generation of Culture, 1: Theoretical Considerations. *Ethology and Sociobiology* 10:29–49.

Trivers, Robert

- 1971 The Evolution of Reciprocal Altruism. *Quarterly Review of Biology* 46:35–37.
1972 Parental Investment and Sexual Selection. *In* Sexual Selection and the Descent of Man. B. Campbell, ed. Pp. 136–179. Chicago: Aldine-Atherton.

Turton, David

- 1977 War, Peace and Mursi Identity. *In* Warfare Among East African Herders. Katsuyoshi Fukui and David Turton, eds. Pp. 179–211. Osaka: National Museum of Ethnology.

Vrčević, Vuk

- 1890 Narodne Pripovijesti i Presude iz Života po Boki Kotorskoj, Hercegovini i Crnoj Gori (Oral Traditions and Judgments from Life in the Bay of Kotor, Hercegovina, and Montenegro). Dubrovnik: Dragutin Pretner.

Wallas, Graham

- 1921 Human Nature in Politics. New Brunswick, NJ: Transaction Books.

Westermarck, Edward

- 1924 The Origin and Development of the Moral Ideas. London: Macmillan.

Western, D., and T. Dunne

- 1979 Environmental Aspects of Settlement Site Decisions Among Pastoral Masai. *Human Ecology* 7:75–98.

Wilson, Edward O.

- 1975 Sociobiology: The New Synthesis. Cambridge, MA: Harvard University Press.
1978 On Human Nature. Cambridge, MA: Harvard University Press.

Wrangham, Richard

- 1987 The Significance of African Apes for Reconstructing Human Social Evolution. *In* The Evolution of Human Behavior: Primate Models. Warren G. Kinzey, ed. Pp. 51–71. Albany: SUNY Press.